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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,164	10/26/2001	Charles K. Crawford	KIMBALL 00.01	2731
7590 04/06/2004 Hayes, Soloway, Hennessey, Grossman & Hage, PC 175 Canal Street Manchester, NH 03101			EXAMINER PICKARD, ALISON K	
			ART UNIT	PAPER NUMBER
			3676	
DATE MAILED: 04/06/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/014,164

Applicant(s)

CRAWFORD, CHARLES K.

Examiner

Alison K. Pickard

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-42 is/are pending in the application.
- 4a) Of the above claim(s) 40-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 16-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 40-42 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the claims are method claims.

No method claims were originally presented

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 40-42 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 16-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford '123 in view of Crawford '956.

Crawford '123 discloses a thin flange comprising a first surface and a second, opposite surface. as seen in Figure 4 (for example) an inner web is formed within a circumference of the inner diameter (i.e. inside of the knife edge). The flange comprises a first set of boltholes arranged in a circular pattern with a first diameter. The flange comprises as second set of boltholes 60 arranged in a circular pattern (i.e. they are arranged on semi-circular portions around the circumference) having a smaller, second diameter. The flange comprises at least one

mounting feature 40 or 42 on an inner surface and a feed through. One of the surfaces comprises a knife-edge. Crawford '123 does not disclose a knife-edge on the other surface or that the flange is disposed between a first and second flange. Crawford '956 teaches using a flange between a first and second flange of a vacuum component to couple the components together with a vacuum tight seal. Crawford '956 teaches using a knife-edge on opposing surface to ensure the tight seal. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the flange of Crawford '123 by providing a knife-edge on the other surface so the flange can be used to couple two vacuum components with a vacuum tight seal as taught by Crawford '956.

Response to Arguments

4. Applicant's arguments filed 12-29-03 have been fully considered but they are not persuasive.

Applicant argues that Crawford '956 does not teach a knife-edge on two opposing surfaces of a single flange. The examiner disagrees. Figure 5 of Crawford '956 shows a single flange having a knife-edge 35 on the opposing surfaces. Further, both Crawford '956 and '123 disclose an inner web "substantially within a circumference of the inner diameter." The term "substantial" is subject to interpretation. For example, the web is not on an outer diameter and therefore is substantially within an inner diameter. The second set of bolt-holes of Crawford '123 is considered to be in a circular pattern in that they are arranged along a semi-circular portion. Further, Crawford '956 teaches the use of two sets of bolt-holes. Crawford '956 teaches that a flange can be used between two flanges (not shown) of a vacuum component system.

It should be noted that Curtis, which discloses a thin flange between two flanges of a system and having two sets of bolt-holes, could be modified in view of Crawford '123 or '956. Both teach the use of a knife-edge on a sealing surface that mates with another component. While Crawford '956 does teach the use of two knife-edges on opposing sides of a single member, one of ordinary skill would have also been motivated to use two knife-edges based on the teaching of Crawford '123 alone. It stands to reason that if a knife-edge is used on a surface contacting another member, then it could be used on any and all surfaces contacting members to provide an effective seal.

Conclusion


5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 703-305-0882. The examiner can normally be reached on M-F (10-7:30), with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703-308-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Alison K. Pickard
Primary Examiner
Art Unit 3676

AP